WHAT IS CLAIMED IS:

1. Compounds of the formulae

$$C + CH_{2}O - CH_{2}O -$$

$$C \longrightarrow CH_{2}O \longrightarrow R_{6}$$

$$R_{7} \longrightarrow C$$

$$R_{7} \longrightarrow C$$

$$R_{8} \longrightarrow C$$

$$R_{6} \longrightarrow CH_{2}O \longrightarrow R_{6}$$

and

$$Z \longrightarrow N$$
 $Z \longrightarrow N$
 $R_6 \longrightarrow N$

wherein Z is a group of the formula $-OR_1$, a group of the formula $-SR_1$, or a group of the formula -NR₁R₂, Y is a group of the formula -OR₃, a group of the formula -SR3, or a group of the formula -NR3R4, n is an integer representing the number of repeat -(CH₂)- or -(CH₂CH₂O)- units, wherein, provided that at least one of R₁, R₂, R₃, R₄, R₅, and R₆ is a hydrogen atom, provided that at least one of R_1 , R_2 , R_3 , R_4 , R_5 , and R_6 is other than a hydrogen atom, and provided that at least one Z or Y within the compound is a group of the formula -NR₁R₂ or a group of the formula -NR₃R₄, R₁, R₂, R₃, R₄, R₅, R₆, and R₇ each, independently of the others, is (i) a hydrogen atom, (ii) an alkyl group, (iii) an aryl group, (iv) an arylalkyl group, or (v) an alkylaryl group, and wherein R₇ can also be (vi) an alkoxy group, (vii) an aryloxy group, (viii) an arylalkyloxy group, (ix) an alkylaryloxy group, (x) a polyalkyleneoxy group, (xi) a polyaryleneoxy group, (xii) a polyarylalkyleneoxy group, (xiii) a polyalkylaryleneoxy group, (xiv) a silyl group, (xv) a siloxane group, (xvi) a polysilylene group, (xvii) a polysiloxane group, or (xviii) a group of the formula

wherein r is an integer representing a number of repeat -CH₂- groups, wherein s is an integer representing a number of repeating -CH₂- groups, and wherein X is (a) a direct bond, (b) an oxygen atom, (c) a sulfur atom, (d) a group of the formula -NR₄₀- wherein R₄₀ is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, or an alkylaryl

group, or (e) a group of the formula -CR $_{50}$ R $_{60}$ - wherein R $_{50}$ and R $_{60}$ each, independently of the other, is a hydrogen atom, an alkyl group, an arylaroup, an arylaroup, or an alkylaryl group, and wherein R $_{6}$ can also be

2. Compounds according to claim 1 wherein the compound is of the formulae

$$C + CH_2O + CH_2O + R_5 + R_2$$

$$\begin{array}{c} R_1 \\ N-C \\ R_2 \\ R_5 \\ \end{array} \\ \begin{array}{c} O \\ C-N \\ R_2 \\ \end{array} \\ \begin{array}{c} C \\ R_2 \\ \end{array} \\ \begin{array}{c} C \\ R_2 \\ \end{array} \\ \begin{array}{c} R_1 \\ R_2 \\ \end{array} \\ \begin{array}{c} C \\$$

$$\begin{pmatrix} R_{1} & O & O \\ R_{2} & N & O \\ R_{5} & N & O \end{pmatrix} - OCH_{2} + C - CH_{2} - O - CH_{2} - C + CH_{2}O - CH$$

3. Compounds according to claim 1 wherein the compound is of the formulae

$$C \longrightarrow CH_2O \longrightarrow R_6$$

$$R_7 \longrightarrow C$$

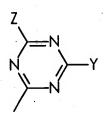
$$R_7 \longrightarrow C$$

$$R_6 \longrightarrow R_6$$

Compounds according to claim 1 wherein Z is a group of the formula -OR1, a group of the formula -SR1, or a group of the formula -NR₁R₂, Y is a group of the formula -OR₃, a group of the formula -SR₃, or a group of the formula -NR₃R₄, n is from 1 to about 100, wherein, provided that at least one of R₁, R₂, R₃, R₄, R₅, and R₆ is a hydrogen atom, provided that at least one of R₁, R₂, R₃, R₄, R₅, and R₆ is other than a hydrogen atom, and provided that at least one Z or Y within the compound is a group of the formula -NR₁R₂ or a group of the formula -NR₃R₄, R₁, R₂, R₃, R₄, R₅, R₆, and R₇ each, independently of the others, is (i) a hydrogen atom, (ii) an alkyl group having at least 1 carbon atom and having no more than about 96 carbon atoms, (iii) an aryl group having at least about 6 carbon atoms and having no more than about 50 carbon atoms, (iv) an arylalkyl group having at least about 7 carbon atoms and having no more than about 96 carbon atoms, or (v) an alkylaryl group having at least about 7 carbon atoms and having no more than about 96 carbon atoms, and wherein R₇ can also be (vi) an alkoxy group having at least 1 carbon atom and having no more than about 96 carbon atoms, (vii) an aryloxy group having at least about 6 carbon atoms and having no more than about 50 carbon atoms, (viii) an arylalkyloxy group having at least about 7 carbon atoms and having no more than about 96 carbon atoms, (ix) an alkylaryloxy group having at least about 7 carbon atoms and having no more than about 96 carbon atoms, (x) a polyalkyleneoxy group wherein the alkyl portion of the repeat alkyleneoxy groups has from about 1 to about 12 carbon atoms and wherein the number of repeat alkyleneoxy groups is from about 2 to about 50, (xi) a polyaryleneoxy group wherein the aryl portion of the repeat aryleneoxy groups has from about 6 to about 14 carbon atoms and wherein the number of repeat aryleneoxy groups is

from about 2 to about 20, (xii) a polyarylalkyleneoxy group wherein the arylalkyl portion of the repeat arylalkyleneoxy groups has from about 7 to about 50 carbon atoms and wherein the number of repeat arylalkyleneoxy groups is from about 2 to about 20, (xiii) a polyalkylaryleneoxy group wherein the alkylaryl portion of the repeat alkylaryleneoxy groups has from about 7 to about 50 carbon atoms and wherein the number of repeat alkylaryleneoxy groups is from about 2 to about 20, (xiv) a silyl group, (xv) a siloxane group, (xvi) a polysilylene group with from 2 to about 100 repeat silylene units, (xvii) a polysiloxane group with from 2 to about 200 repeat siloxane units, or (xviii) a group of the formula

wherein r is at least 1, wherein r is no more than about 100, wherein s is at least 1, wherein s is no more than about 100, and wherein X is (a) a direct bond, (b) an oxygen atom, (c) a sulfur atom, (d) a group of the formula -NR₄₀- wherein R₄₀ is a hydrogen atom, an alkyl group with from 1 to about 50 carbon atoms, an aryl group with from 6 to about 50 carbon atoms, an arylalkyl group with from about 7 to about 100 carbon atoms, or an alkylaryl group with from about 7 to about 100 carbon atoms, or (e) a group of the formula -CR₅₀R₆₀- wherein R₅₀ and R₆₀ each, independently of the other, is a hydrogen atom, an alkyl group with from 1 to about 50 carbon atoms, an aryl group with from 6 to about 50 carbon atoms, an arylalkyl group with from about 7 to about 100 carbon atoms, or an alkylaryl group with from about 7 to about 100 carbon atoms, and wherein R₆ can also be



- 5. Compounds according to claim 1 wherein at least one of R_1 , R_2 , R_3 , R_4 , R_5 , and R_6 is an unsubstituted alkyl group, an unsubstituted aryl group, an unsubstituted arylalkyl group, or an unsubstituted alkylaryl group.
- 6. Compounds according to claim 1 wherein at least one of R_1 , R_2 , R_3 , R_4 , R_5 , and R_6 is a substituted alkyl group, a substituted arylaryl group, or a substituted alkylaryl group.

7. Compounds according to claim 6 wherein the substituents are hydroxy groups, halogen atoms, amine groups, imine groups, ammonium groups, pyridine groups, pyridinium groups, ether groups, aldehyde groups, ester groups, amide groups, carbonyl groups, thiocarbonyl groups, sulfate groups, sulfonate groups, sulfide groups, sulfoxide groups, phosphine groups, phosphonium groups, phosphate groups, nitrile groups, mercapto groups, nitro groups, nitroso groups, sulfone groups, acyl groups, acid anhydride groups, azide groups, azo groups, cyanato groups, isocyanato groups, thiocyanato groups, isothiocyanato groups, alkoxy groups, aryloxy groups, arylalkyloxy groups, alkylaryloxy groups, polyalkyleneoxy groups wherein the alkyl portion of the repeat alkyleneoxy groups has from about 1 to about 12 carbon atoms and wherein the number of repeat alkyleneoxy groups is from about 2 to about 50, polyaryleneoxy groups wherein the aryl portion of the repeat aryleneoxy groups has from about 6 to about 14 carbon atoms and wherein the number of repeat aryleneoxy groups is from about 2 to about 20, polyarylalkyleneoxy groups wherein the arylalkyl portion of the repeat arylalkyleneoxy groups has from about 7 to about 50 carbon atoms and wherein the number of repeat arylalkyleneoxy groups is from about 2 to about 20, polyalkylaryleneoxy group wherein the alkylaryl portion of the repeat alkylaryleneoxy groups has from about 7 to about 50 carbon atoms and wherein the number of repeat alkylaryleneoxy groups is from about 2 to about 20, silyl groups, siloxane groups, polysilylene groups with from 2 to about 100 repeat silylene units, polysiloxane groups with from 2 to about 200 repeat siloxane units, or mixtures thereof, wherein two or more substituents can be joined together to form a ring.

- 8. Compounds according to claim 1 wherein R_1 , R_2 , R_3 , and R_4 each, independently of the others, is hydrogen, methyl, ethyl, propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, or eicosyl.
- 9. Compounds according to claim 1 wherein R_{δ} is hydrogen.
- 10. Compounds according to claim 1 wherein $R_{\rm 6}$ is hydrogen,

or

11. Compounds according to claim 1 wherein n is 1, 3, 5, 7, or 9.

12. Compounds according to claim 1 of the formulae

$$C+CH_{2}O+N+H$$

$$H_{3}C(H_{2}C)_{7}$$

$$N-H$$

$$H_{3}C(H_{2}C)_{7}$$

$$H_3C(H_2C)_7$$
 $H_3C(H_2C)_7$
 $H_3C(H_2C)_7$

$$C+CH_{2}O-V+H$$
 $C+CH_{2}O-V+H$
 $C+CH_{2}O-V+$

$$C+CH_{2}O-V+H$$
 $C+CH_{2}O-V+H$
 $C+CH$

$$H_3C(H_2C)_{17}$$
 $N-H$
 $C+CH_2O-V$
 $H_3C(H_2C)_{17}$
 $N-H$
 $N-H$
 $N-H$
 $N-H$

O=C
$$(CH_2)_5$$
 $(CH_2)_7$
 $(CH_2$

$$C + CH_{2}O - CH_{2}O -$$

$$H-N$$
 $H-N$
 $H-N$

$$H_3C(H_2C)_7$$
 $H_3C(H_2C)_7$ $H_3C(H_2C)_7$ H_3 H

13. A compound according to claim 1 of the formula

14. A compound according to claim 1 of the formula

15. A compound according to claim 1 of the formula

O=C
$$(CH_2)_5$$
 $(CH_2)_7$
 $(CH_2$

16. A compound according to claim 1 of the formula

$$C + CH_2O - O + CH_2O + H$$

17. A compound according to claim 1 of the formula

18. A process for preparing a compound of the formula

$$C \longrightarrow CH_{2}O \longrightarrow R_{6}$$

$$R_{7}-C \longrightarrow CH_{2}O \longrightarrow R_{6}$$

$$R_{7}-C \longrightarrow CH_{2}O \longrightarrow R_{6}$$

$$Z \longrightarrow N$$

$$R_{7}-C \longrightarrow CH_{2}O \longrightarrow R_{6}$$

$$Z \xrightarrow{N} \begin{array}{c} Y \\ X \\ N \end{array} \longrightarrow \begin{array}{c} Z \\ N \\ N \end{array} \longrightarrow \begin{array}{c} Y \\ N \end{array} \longrightarrow \begin{array}{c}$$

$$Z \longrightarrow N$$
 $Z \longrightarrow N$
 $R_6 \longrightarrow N$

wherein Z is a group of the formula -OR1, a group of the formula -SR1, or a group of the formula -NR₁R₂, Y is a group of the formula -OR₃, a group of the formula -SR3, or a group of the formula -NR3R4, n is an integer representing the number of repeat -(CH₂)- or -(CH₂CH₂O)- units, wherein, provided that at least one of R_1 , R_2 , R_3 , R_4 , and R_6 is a hydrogen atom, provided that at least one of R_1 , R_2 , R_3 , R_4 , and R_6 is other than a hydrogen atom, and provided that at least one Z or Y within the compound is a group of the formula -NR₁R₂ or a group of the formula -NR₃R₄, R₁, R₂, R₃, R₄, R₆, and R₇ each, independently of the others, is (i) a hydrogen atom, (ii) an alkyl group, (iii) an aryl group, (iv) an arylalkyl group, or (v) an alkylaryl group, and wherein R₇ can also be (vi) an alkoxy group, (vii) an aryloxy group, (viii) an arylalkyloxy group, (ix) an alkylaryloxy group, (x) a polyalkyleneoxy group, (xi) a polyaryleneoxy group, (xii) a polyarylalkyleneoxy group, (xiii) a polyalkylaryleneoxy group, (xiv) a silyl group, (xv) a siloxane group, (xvi) a polysilylene group, (xvii) a polysiloxane group, or (xviii) a group of the formula

wherein r is an integer representing a number of repeat - CH_2 - groups, wherein s is an integer representing a number of repeating - CH_2 - groups, and wherein X is (a) a direct bond, (b) an oxygen atom, (c) a sulfur atom, (d) a group of the formula - NR_{40} - wherein R_{40} is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, or an alkylaryl

group, or (e) a group of the formula -CR $_{50}$ R $_{60}$ - wherein R $_{50}$ and R $_{60}$ each, independently of the other, is a hydrogen atom, an alkyl group, an arylaryl group, an arylaryl group, or an alkylaryl group, and wherein R $_{6}$ can also be

which comprises (I) admixing a compound of the formula

$$C-CH_{2}O-NHR_{6}$$

$$R_{7}-C-CH_{2}O-NHR_{6}$$

$$R_{6}HN-O-(CH_{2}O_{1}n-O-NHR_{6})$$

$$R_{6}HN-O-(CH_{2}CH_{2}O_{1}nCH_{2}-O-NHR_{6})$$

or

$$\left(R_6HN-CH_2-C-CH_2-C-CH_2-C-CH_2-C-CH_2O-CH_2$$

with a cyanuric halide at a temperature below about 0° C; and (II) thereafter adding thereto one or more amines of the formulae R_1R_2NH and R_3R_4NH , wherein R_1 , R_2 , R_3 , and R_4 can be either the same as each other or different from each other and allowing the reactants to react

at a temperature of at least about 60°C, thereby generating a compound of the formula

$$C \longrightarrow CH_2O \longrightarrow R_6$$

$$R_7 \longrightarrow C$$

$$R_7 \longrightarrow C$$

$$R_6 \longrightarrow R_6$$

$$Z \longrightarrow N$$
 $Z \longrightarrow N$
 $Z \longrightarrow$

19. A process for preparing a compound of the formula

$$C + CH_2O + CH_2O + R_5 + R_2$$

$$R_7-C$$
 CH_2O
 R_5
 R_1
 R_2
 R_5

$$\begin{array}{c} R_1 \\ N - C \\ R_2 \\ R_5 \\ \end{array} \\ \begin{array}{c} O \\ C - N \\ R_2 \\ \end{array} \\ \begin{array}{c} C - N \\ R_2 \\ \end{array} \\ \begin{array}{c} R_1 \\ R_2 \\ \end{array} \\ \begin{array}{c} C - N \\ R_2 \\ \end{array} \\ \begin{array}{c} R_2 \\ R_3 \\ \end{array} \\ \begin{array}{c} C - N \\ R_2 \\ \end{array} \\ \begin{array}{c} R_1 \\ R_2 \\ \end{array} \\ \begin{array}{c} C - N \\ R_2 \\ \end{array} \\ \begin{array}{c} C - N \\ R_3 \\ \end{array} \\ \begin{array}{c} C - N \\ R_2 \\ \end{array} \\ \begin{array}{c} C - N \\ R_3 \\ \end{array} \\ \begin{array}{c} C - N \\ R_2 \\ \end{array} \\ \begin{array}{c} C - N \\ R_3 \\ \end{array}$$

or

$$\begin{pmatrix}
R_1 & O & O \\
R_2 & N & O \\
R_3 & N & O
\end{pmatrix}$$

$$\begin{pmatrix}
C & N_1 \\
C & N_2
\end{pmatrix}$$

$$\begin{pmatrix}
C & N_1 \\
C & N_2
\end{pmatrix}$$

$$\begin{pmatrix}
C & N_1 \\
C & N_2
\end{pmatrix}$$

$$\begin{pmatrix}
C & N_2 \\
R_3 & N_2
\end{pmatrix}$$

wherein n is an integer representing the number of repeat -(CH_2)- or -(CH_2CH_2O)- units, wherein, provided that at least one of R_1 , R_2 , R_3 , R_4 , and R_5 is a hydrogen atom, provided that at least one of R_1 , R_2 , R_3 , R_4 , and R_5 is other than a hydrogen atom, R_1 , R_2 , R_3 , R_4 , R_5 , and R_7 each, independently of the others, is (i) a hydrogen atom, (ii) an alkyl group,

(iii) an aryl group, (iv) an arylalkyl group, or (v) an alkylaryl group, and wherein R₇ can also be (vi) an alkoxy group, (vii) an aryloxy group, (viii) an arylalkyloxy group, (ix) an alkylaryloxy group, (x) a polyalkyleneoxy group, (xi) a polyaryleneoxy group, (xii) a polyaryleneoxy group, (xiii) a polyalkylaryleneoxy group, (xiv) a silyl group, (xv) a siloxane group, (xvi) a polysilylene group, (xvii) a polysiloxane group, or (xviii) a group of the formula

wherein r is an integer representing a number of repeat -CH₂- groups, wherein s is an integer representing a number of repeating -CH₂-groups, and wherein X is (a) a direct bond, (b) an oxygen atom, (c) a sulfur atom, (d) a group of the formula -NR₄₀- wherein R₄₀ is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, or an alkylaryl group, or (e) a group of the formula -CR₅₀R₆₀- wherein R₅₀ and R₆₀ each, independently of the other, is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, or an alkylaryl group which comprises (I) admixing a compound of the formula

$$C + CH_2O - O - NH_2 \Big)_4$$

$$R_7 - C + CH_2O - O - NH_2 \Big)_3$$

$$H_2N - O - (CH_2)_n - O - NH_2$$

or

$$\left(H_{2}N - CH_{2} - CH_{2}$$

with a phosgenating agent and a non-nucleophilic base at a temperature below about 0°C; and (II) thereafter adding thereto one or more amines of the formulae R_1R_2NH and R_3R_4NH , wherein R_1 , R_2 , R_3 , and R_4 can be either the same as each other or different from each other and allowing the reactants to react at a temperature of at least about 60°C, thereby generating a compound of the formula

$$C + CH_2O - CH_2O - R_5 R_2$$

$$R_7$$
— C — CH_2O — CH_2O — R_5
 R_2
 R_5

$$\begin{array}{c} R_1 & O \\ N-C & \\ R_2 & N-C \\ \hline \\ R_3 & \\ \end{array} \\ \begin{array}{c} O \\ C-N \\ R_2 \\ \hline \\ R_5 \\ \end{array} \\ \begin{array}{c} R_1 \\ R_2 \\ \hline \\ R_5 \\ \end{array}$$

$$\begin{pmatrix}
R_{1} & O & O & O \\
R_{2} & N - C' & O & O \\
R_{3} & N - C' & O & O \\
R_{5} & N - C' & O & O \\
R_{5} & N - C' & O & O \\
R_{5} & R_{2}
\end{pmatrix}_{3}$$